### **REMARKS/ARGUMENTS**

## The Status of the Claims.

Claims 1 to 3, 5 to 16 and 20 to 24 are pending with entry of this amendment. Claims 4, 17, 18, and 19 are cancelled herein. Claims 1, 20, 22 and 23 are amended herein. These amendments introduce no new matter and support is replete throughout the specification. These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter or agreement with any objection or rejection of record.

With respect to claim 1, the added TFD structure with heterocyclic rings is found throughout the specification. In particular, see paragraph 62 of the specification.

With respect to claims 1 and 23, administration to other than individuals infected with HIV is well supported throughout the specification (see MPEP section 2173.05(i)). For example, see paragraphs 3, 7, 33 and 105, and the Uses of Thione-Forming Disulfides in Immunomodulation section starting at paragraph 110.

Applicants submit that no new matter has been added to the application by way of the above amendment. Accordingly, entry of the amendment is respectfully requested.

### The Election/Restriction Requirement.

In the Office Action of June 15, 2005, Applicants were requested to elect a single species of immune response and a single species of disclosed compound for current search and examination. The present Office Action reflects consideration of claims comprising the elected immune response species of NK cells and elected compound species of 6,6'-dithiodinicotinic acid. However, all of claims 1 to 3, 5 to 16 and 20 to 24 remain pending and should ultimately be considered in the examination of this application.

Applicants note that, because claim 1 is an allowable generic claim and a claim linking all of the dependent claims, none of the claims should be considered withdrawn from prosecution in the present application but only considered species not currently under examination. Applicants note that the indicated withdrawn claim status should not be construed as abandonment or agreement with any particular position held by the Examiner in the Office Action.

# 35 U.S.C. §112, First Paragraph.

All claims currently under consideration (claims 1, 2, 5, 6, 10-12, and 17-24) were rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking enablement. Applicants traverse.

The Examiner argues that, the specification allegedly does not provide enablement for "the modulation of all immune responses with <u>all thione-forming disulfides.</u>" (Emphasis not added).

As a preliminary matter, Applicants note that this statement fails to take into account the amendment of the previous Response in which the immune responses were limited to a cellular response, a humoral response or an innate immune response. These particular immune responses are exhaustively enabled with abundant conceptual examples and extensive reduction to practice throughout the specification. In the phone interview of May 23, 2006, the Examiner did not suggest enablement of immune responses remains an issue after the previous amendment to particular supported immune responses. The interview enablement discussion focused solely on enablement of TFDs. Furthermore, the present Action does not provide support for an allegation that the selected immune responses are not enabled. For example, the Action makes no Wands factor arguments suggesting a lack of immune response enablement. Moreover, at page 8 of the present Action, the Examiner states that inclusion of the particular immune responses would free claim 23 of the enablement issue. Therefore, Applicant is not on reasonably on actual notice if immune response enablement remains an issue; Applicant assumes the inclusion solely in the title paragraph of the section 112 rejections was a mere cut and paste oversight.

The recitation of "thione-forming disulfides" is seen by the Examiner as allegedly mere functional language not supported by the specification. Applicant does not agree the TFDs are not enabled. However, in order to expedite the present application, Applicant has agreed to conform to the suggestion of the Examiner in the present prosecution and limit TFDs to those with the specific structures of the amendment. The structures can not be considered mere functional language. The structures of the present amendment are well

understood by those skilled in the art. Therefore, Applicant requests withdrawal of the rejections for alleged lack of enablement.

### 35 U.S.C. §102.

Claims 1, 2, 5, 6, 10-12, and 17-24 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by Henderson et al. (U.S. 6,001,555) as evidenced by Toth et al., (J. Virology 67: 5879-88). Applicants traverse.

In order for a reference to anticipate an invention, the reference must teach each and every element of the claimed invention. In order for a reference to anticipate an invention, anticipation requires that "all limitations of the claim are found in the reference, or 'fully met' by it." <u>Kalman v. Kimberly-Clark Corp.</u>, 218 USPQ 781, 789 (Fed. Cir. 1983). Here, Henderson does not expressly or inherently provide all limitations of the claims.

Henderson suggests his described compounds could be used to treat AIDS in patients, e.g., by chemically attacking the CCHC zinc fingers of the viral nucleocapsid protein (abstract). This is completely unrelated to modulation of an immune response, as claimed, and does not inherently disclose the present invention.

However, the above argument is rendered moot because, in order to expedite this application, Applicant has agreed to limit present claims to methods wherein administration of the TFDs is to individuals other than those infected with HIV. As discussed above, this is entirely within the rules of MPEP section 2173.05, and is well supported within the originally filed specification.

For the additional reason that Henderson does not teach administration of TFDs to individuals other than an individual infected with HIV, the reference does not teach all limitations of any claim and does not anticipate any claim. Applicant respectfully requests the rejections for alleged anticipation be withdrawn.

### **CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 107-000110US Request for Continued Examination Dated August 9, 2006 RCE after the Office action of April 12, 2006

If the claims are deemed not to be in condition for allowance after consideration of this Response, a telephone interview with the Examiner is hereby requested. Please telephone the undersigned at (510) 769-3510 to schedule an interview.

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Respectfully submitted,

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#### Attachments:

1) A petition to extend the period of response for 1 month;

- 2) A transmittal sheet;
- 3) A fee transmittal sheet;
- 4) RCE Transmittal + 1 Copy; and,
- 5) A receipt indication postcard.